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13.
The goal of this research is to develop a comprehensive program of interventions designed to increase early breast cancer detection among Filipino American women. This population has been showed to have high rates of late stage breast and cervical cancer. The first step toward increased early detection is identification and measurement of population characteristics related to screening practices and prospective efforts to improve screening rates.

A multi-disciplinary, multi-cultural team designed and conducted a random telephone survey with a representative sample of 875 Filipino American women in 12 Northern California counties. A Census Tract based random digit dialing (RDD) method was used (using tracts with at least 8% Filipinos, based on 1990 Census). The sample included: 191 women 65+, 225 aged 50-64, 459 aged 20-49. A questionnaire was developed in three Filipino languages and English. The instrument is based on formative research, a pilot test, and other pre-testing. Preliminary analysis showed that mammography rates varied by age, language use, and insurance status. In particular, those who were elderly, less acculturated, or lacked insurance were less likely to be screened. The product of our findings will be a community-based intervention plan and application for a controlled trial to evaluate proposed interventions.

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FOREWORD

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Magdalene McBride 10/29/97

PI - Signature Date

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TITLE: EARLY CANCER DETECTION FOR FILIPINO WOMEN

ANNUAL REPORT

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INTRODUCTION

Nature of the Problem

This research is directed at reducing high rates of late-stage breast cancer among Filipino American women. This is a large and growing population for whom little is known about health practices, and there are virtually no data on knowledge, attitudes, intentions and practices pertaining to cancer screening. Interventions aimed at improvements in early cancer detection can only be effective if they account for and address existing barriers to screening, and if the interventions are delivered through modes and messages appropriate and acceptable to their intended audience. Such tailoring of education and other institutional activities requires data on the needs and characteristics of specific population subgroups, including cultural and socio-economic influences on barriers, practices and resources.

Background of Previous Work

The Northern California Cancer Center (NCCC) has developed an extensive research program devoted to the study of cancer control among underserved and multi-ethnic populations. Three studies are related to the proposed research: 1) An NCI Program Project grant, *Pathways to Early Cancer Detection for Four Ethnic Groups*, (1992-1997) under the overall direction of Dr. Robert Hiatt. Dr. Pasick is Project Coordinator and Dr. Sabogal is Co-Investigator in this research. 2) The *Breast and Cervical Cancer Intervention Study (BACCIS,*1991-1997, Dr. Robert Hiatt, P.I.) is an NCI-funded study of community- and clinic-based interventions intended to increase early detection among underserved women, particularly African American, Hispanic, White and Chinese American. Dr. Pasick is responsible for outreach interventions and process evaluation. 3) *Improving Health Surveys for Multi-Ethnic Populations* (1992-1996, Dr. Carol D'Onofrio, P.I.) was funded by the Centers for Disease Control National Center for Health Statistics. Dr. Pasick is Project Coordinator in this study to develop guidelines for survey construction, translation, pilot-testing and administration and to compare survey methods (household and telephone) across four ethnic groups. Preliminary findings indicate that question construction for health surveys being conducted in English and other languages require highly simplified initial English versions. Also, exact translations from English may sacrifice important elements of meaning such that researchers must carefully and knowingly weigh potential loss of reliability from less exact translation with potential loss of validity from very precise translation.

Also from within our team, the following research has contributed to the state of knowledge on health in Filipino American culture. Dr. McBride was awarded three pilot study grants in 1991 from the William Henry Nelson Trust, School of Medicine, Stanford University. The first, *Health Status of Filipino World War II*

Veterans used semi-structured interviews of 88 veterans. Among the findings were multiple health symptoms that were not brought to the attention of physicians while in the Philippines. *Health Symptoms and Acculturation in Filipino Elders* involves the development of an acculturation scale for Filipino American elders based on a modification of the Cuellar Acculturation Scale. *Generativity and Caregiving: Functions at Mid-Life of Women in Filipino Families* was a qualitative analysis of semi-structured interviews of members of three Filipino families. Findings suggested strong differences in caregiving roles and in decision making related to primary caregiving responsibilities.

Mr. Jang of Polaris Research, Inc. was the Principal Investigator of the *Filipino Smoking Prevalence Study*, through a grant to the Asian American Health Forum from the Tobacco Related Disease Research Program of the University of California in 1991. This was a statewide 30-minute telephone survey of 1318 Filipino men and women ages 18 and over (82% responding). Interviews were conducted in Tagalog, Ilocano and English by trained Filipina interviewers.

Purpose of Present Work

This study has the primary aim of developing a comprehensive program of interventions that will increase early breast and cervical cancer detection among Filipino American women. Based on the need for interventions designed to improve early breast cancer detection among Filipino American women, our understanding of the population, and our prior research experience, we developed the following objectives for this research:

a. To collect information from a random, population-based sample of 875 Filipino American women on the correlates, barriers, and possible incentives to periodic use of breast cancer screening, including access to care, knowledge levels, attitudes, intentions, and practices regarding preventive health care in general, and cancer and cancer screening, in particular.

b. To identify and define possible cultural barriers to early cancer detection across a range of socio-economic status, acculturation levels and periods of immigration.

c. To assess the applicability of dominant behavioral theories to cancer screening among Filipino Americans.

d. To use information from specific aims a, b, and c to develop a detailed plan, in the form of a research proposal, for implementation and evaluation of culturally appropriate interventions targeted to Filipino women and aimed at eliminating barriers to cancer screening and increasing early detection rates.

Both qualitative and quantitative methods have been used to gather information, develop and test hypotheses, and test dominant behavioral theories to produce answers to the following: what predisposing, enabling and reinforcing factors influence the use of breast and cervical cancer screening among Filipino American women in Northern California? The research began with formative research consisting of qualitative inquiry intended to elucidate a broad range of concepts, issues and problems that influence use and non-use of early detection methods in the target population. This produced hypotheses that address variations in population subgroups pertaining to cancer screening practices, behaviors and potential interventions. For example, the barriers to cancer screening may be different for less acculturated Filipino American women than for those who have adopted a more western lifestyle. These factors were operationalized into measurable variables in a survey instrument and translated into Tagalog, Ilocano, and Cebuano. Between the period of November 1996 until May 1997, a population-based random-digit-dialing telephone survey was conducted with 875 Filipino American women, ages 20 and over, residing in the 12 Northern California counties. The data from the survey is currently being analyzed and interpreted to form an intervention plan intended to increase early cancer detection. The third year of the study has been spent completing the development of the research instrument, conducting the telephone survey, conducting preliminary analyses on the data set, and developing a preliminary intervention plan.

BODY

Methods

The components of this study have been first the formative, qualitative research that informed items for use in the quantitative telephone survey questionnaire, followed by the telephone survey, and analysis of the data to produce an intervention plan and research design for evaluation of the intervention. Based on the formative data collected, hypotheses were refined for testing. Formative research proceeded through a three-step process: open-ended interviews, focus groups, and construction of close-ended questions using rigorous pre-testing. Our formative research was designed to identify possible predictors and correlates of screening practices among Filipino American women as well as to identify commonly used language that would make questionnaire items readily understood.

Focus Groups. Focus group methodology has been widely used in needs assessments for health promotion and cancer control. This method is useful to generate background information on a given topic; as a first step in developing

quantitative methods; to generate research hypotheses; to diagnose problems; to study motivation, insights and connections; to plan and design interventions; evaluate messages and modes of communication; design materials; and interpret results. A detailed plan for the conduct of focus groups was presented in our first annual report in which we indicated that seven groups had been conducted. During the third year, the findings from the focus groups were incorporated in refinement of the survey instrument, as well as in the community awareness campaign instituted leading up to and during the telephone survey.

Open-ended interviews. For in-depth exploration of concepts and interview items, 22 women were interviewed using open-ended questions covering a wide range of issues relevant to use of cancer screening. These questions related respondents' expectations, attitudes, values, norms, and stereotypes regarding cancer and tests for its early detection, including fate and fatalism, personal control over health and longetivity, and the pros and cons of cancer screening. The findings from the open-ended interviews were incorporated during the development of the survey instrument.

Conceptual framework. A conceptual framework was developed to unify our hypotheses on factors that affect cancer screening and that should be addressed in interventions to improve screening practices among Filipino American women. The framework depicts the interrelationships among: 1. *Church, Cultural Values, Family Values, Filipino Societal Norms*; 2. *American Societal Norms, Acculturation, Education, and Income*; and 3. *Medical Access, Health Attitudes and Beliefs*.

The hypotheses that resulted from the qualitative research include:
a. Low socio-economic status (SES) combined with low acculturation will be associated with low levels of cancer screening; b. Low SES will be associated with reduced access to medical care and low levels of screening; c. More traditional cultural values will be associated with low screening (particularly among those of low SES). As a result of the quantitative findings, the cultural framework and hypotheses is currently being refined.

Survey.

Pilot Test. Our original research plan called for random sampling of Filipino women using a new approach to random selection of relatively rare populations. Using a modification to Waksberg's random-digit dialing (RDD) procedure to identify a random sample of Filipina American women, our modification was intended to maximize the efficiency of RDD for selecting persons in minority segments of the population by using data from population-based cancer registries to identify primary sampling units (PSU). In order to assure a representative sample, for the few cancer patients whose phone numbers are not available from the registry records (5% of

Filipino Americans diagnosed in the Bay Area in 1990 and 1991), Haine's reverse directories was to be used to identify the patient's phone number or the phone number of a neighbor. After extensive deliberation by our Sampling Sub-Committee, it was determined that a pilot test of this method was needed to ascertain its effectiveness in reaching an adequate number of the target population within the allocated budget. We determined that the pilot would consist of a comparison of the Census Tract Based RDD method (using tracts with at least 5% Filipinos, based on the 1990 census) and the Cancer Registry Based RDD method. It was further agreed that such a pilot test would be an opportunity to test different question formats since the literature to date provides no guidance on survey methods appropriate for this population. To minimize cost, the plan for the pilot included sampling only English-speaking Filipinas, 133 total from three age strata.

Upon reviewing the findings of the pilot test, we determined that both the Census Tract Based RDD method and the Cancer Registry Based RDD method were essentially equal in terms of the population identified since the women were demographically similar. Furthermore, the difference in the hit rates was not statistically significant. However, we decided that the Census Tract Based random-digit-dialing method was preferable due to its efficiency in requiring fewer phone numbers that were needed to be called. This was because the numbers resulted in fewer business numbers.

Pilot Test Results. Other findings from the pre-test include a clear basis for including greater context to somewhat vague concepts. We included examples of refined questions in the Second Year Annual Report. Also, it was determined that yes/no responses were preferable to a Likert scale for a telephone survey in this population because respondents consistently did not use the range of the scale where this option was presented, and had difficulty understanding the scale.

Main Survey. An age-stratified random sample of Filipino American women, age 20 years and older, residing in twelve Northern California counties (Alameda, Contra Costa, Marin, Monterey, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, and Solano) was sampled in this population-based survey. According to the 1990 census, 21% of the US Filipino American population and 41% of the California Filipino American population live in these twelve counties. This geographic area covers both urban and rural areas. Over 112,500 Filipino American women age 20 years and older reside in the study target area. The survey was conducted using Computer Assisted Telephone Interviewing (CATI) technology. There was a total of 52,320 calls made with 20,163 numbers called at least once. The total number of Filipino households enumerated was 1188 wherein 65% of homes had only one eligible woman, and 35% of homes had more than one eligible Filipino woman.

than one eligible Filipino woman.

The survey was fielded later than originally planned due to a far more intensive formative phase for instrument development. Completion of the survey once fielded took three months longer than expected because we found our budget accommodated sampling from census tracts with 8% rather than 10% Filipinos (based on 1990 Census). This was preferable because we could include Filipinos across a broader range of acculturation, but it did require many more phone calls and thus a longer time frame to find eligible women.

We interviewed 875 Filipino women with the following breakdown for three age strata: 191 respondents 65+, 225 respondents 50-64, and 459 respondents 20-49. The response rate for interviews was 81%. Of the total interviews completed, 54% were completed in English, 41% were completed in Tagalog, 4% were completed in Ilocano, and 1% were completed in Cebuano. The final instrument consisted of 162 items. The mean interview time was 31.2 minutes. At the time of the first contact with the eligible household, all adult Filipino women (20 years of age or older) living within the house were enumerated and classified into one of the three age groups. The respondent was the randomly selected woman from the oldest age group represented by those residing within the household. This design reflects over sampling of the 65+ age group to identify characteristics and needs we believe will be distinct from other age groups, and that will have major impact on the design of interventions for this group.

Main Survey Results. Preliminary analysis of the 875 respondents showed a wide range of socioeconomic status and acculturation in the Filipino community. Approximately one quarter of the sample reported an annual household income of less than $20,000 and one quarter had incomes exceeding $75,000. More than half the respondents had a college degree, but 11% had less than a high school diploma. Only 9% were without health insurance, and 15% had MediCal or Medicare only. Although 90% were born in the Philippines, one third had spent at least half their life in the US, and 43% spoke a Filipino language more often than English at home.

The proportion of women reporting recent cancer screening was lower compared to those of San Francisco Bay Area black and white women from the Northern California Cancer Center (Pathways Project, Hiatt et al, unpublished data, 1997): 67% of women 20 and older had a clinical breast exam (CBE) in the past 2 years (Blacks 73%, Whites 77%); 75% of women 20 and older had a Pap test in the past 3 years (Blacks 88%, Whites 86%), and 64% of women over age 50 had a mammogram in the past 2 years (Blacks 72%, Whites 74%).

Among Filipino American women, screening rates varied by age, insurance status, and proportion of life in the U.S. The overall proportion of women age 20 and over reporting current CBE (had CBE in the past 2 years) and regular Pap screening (had Pap smear in the past 3 years and 2 or more in the past 5 years) was 67% and 66%, respectively. However, current CBE and regular Pap screening were less common among women over age 65 (53% each), among the uninsured (49% and 43%), those who had lived less than one-fourth of their life in the U.S. (54% and 49%). The overall proportion of women age 40 and over reporting regular mammography screening (had a mammogram in the past 2 years and 3 or more in the past 5 years) was 39%. However, regular mammography screening was less common in women over 65 (39%) or in their forties (25%), or who had no insurance (18%) or who spent one-fourth of their life in the U.S. (29%). Additionally, the extent of English use, Religious Practice, and Traditional Health Beliefs were significantly associated with screening. These factors were composed of a selected number of variables (See Appendix). Regular mammography, current CBE, and regular Pap smear were less common among women who had low extent of English use (32%, 59%, and 52%) and strong Traditional Health Beliefs (29%, 57%, and 55%). High religious practice was associated with regular mammography screening (44%).

CONCLUSIONS

The summary of results to date show that although the majority of Filipino women obtain breast and cervical cancer screening, those who are elderly, less acculturated, or lack insurance are less likely be screened. Targeted interventions need to be developed for Filipino American women who are: age 50 and older, without insurance, and with limited use of Engish who are recent immigrants. Furthermore, interventions are needed that emphasize lifelong habits of regular maintenance screening. Interventions need to be developed that address access barriers and are sensitive to the concerns of women with traditional beliefs. A finding similar to that for White, Black, and Chinese women (Breast and Cervical Cancer Intervention Study--BACCIS, Hiatt et al, unpublished data, 1997) was that the church would not be the venue to find women who are most at risk for not receiving mammography screening because women with strong religious affiliations are most likely to be screened.

Through a mini-grant from the Northern California Cancer Center, the Filipino Women's Health Study also conducted four focus groups on the topic of developing Filipino-focused health education materials between September and October 1997. The focus groups were designed to explore the cultural characteristics and marketing communications strategies that will be useful in designing effective interventions and health education materials on breast cancer screening for Filipino American women. The qualitative findings are intended to supplement the quantitative data collected from the telephone survey conducted by Filipino

Women's Health Study. Together, the information will be used to develop culturally appropriate intervention programs and health education materials on breast cancer tailored to the needs of Filipino American women.

The purpose of this study was to collect the information needed to develop an intervention to effectively increase the use of breast cancer screening among Filipino American women. A major step toward this aim will be taken immediately upon completion of the study. The Northern California Cancer Center is the recipient of a five-year program project grant (1998-2002) from the National Cancer Institute, under the overall direction of Dr. Rena Pasick (Filipino study, Co-Principal Investigator). A component study is entitled "Pathfinders: Access and Early Cancer Detection for the Underserved." This is an outreach study to test a highly tailored set of interventions in a randomized, controlled trial targeting a cohort of 1500 low-income women including 200 Filipinas. The findings from the current DOD study will be used to inform the tailoring of messages in periodic mailings to women and in tailored telephone counseling by trained lay health workers. Results of the NCI trial will greatly expand and refine our knowledge of workable interventions for Filipino women for use in a subsequent larger scale trial aimed at the Filipino community of Northern California.

Future analyses of the data are in progress and will continue throughout the year through a no-cost extension. The final conclusions for the study are still under development.

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Rakowski W, Fulton JP, Feldman JP. Stages of adoption and women's decision-making about mammography. *Health Psychol* 12:209-214, 1993.

LIST OF APPENDICES

APPENDIX A:
MANUSCRIPTS IN PROGRESS
(Primary Authors)

1. McBride MR, Pasick RJ: Cancer Screening in Filipino Women.

2. McBride MR, Yeo G: Cohort Differences in Cancer Screening Among Older Filipino Women.

3. Tuason N, McBride M: Comparison of Cultural Information From Contextual and Non-Contextual Questions.

4. Pasick RJ, Stewart S, Hiatt RA: A Comparison of Access to Health Care and Cultural Beliefs as Determinants of Cancer Screening Among Filipino American Women and a Cross-Cultural Analysis of Cancer Screening Practices Across Six Ethnic Groups: Comparative Data from Northern California and the United States.

5. Pasick RJ: Development of a Filipino-language survey From Concept to Data: Concordance Between Qualitative and Quantitative Findings in Cancer Screening Variables.

6. Tuason N: Conceptual Paper on Cultural Values and Attitudes.

7. Sabogal F: Sex role, Familism, religiosity attitudes and repeated mammography.

8. Sabogal F: Development of an acculturation scale for Filipinos.

9. Stewart S: Effect of Within Household Sampling in the Filipino Women's Health Study Telephone Survey.

10. Stewart S: Examining patterns of acculturation of younger Filipino women (under 40 years old) and its influence on health behavior.

11. Horn-Ross P: Comparison of two random-digit-dialing (RDD) Sampling Methods: Census Based versus Cancer Registry Based.

APPENDIX B:
RESULTS AND TABLES

ADOPTION STAGE DEFINITIONS

Adoption Stage for Mammography*

Stage	Heard	Had	Years Since Last	No. Past 5 Years	Plans Next Year	Definition
1. Pre-Contemplation (i)	No	No				Never Heard
2. Pre-Contemplation (ii) 3. Contemplation (i)	Yes Yes	No No			No Yes	Never Had
4. Relapse 5. Contemplation (ii) 6. Action	Yes Yes Yes	Yes Yes Yes	2+ 2+ <2	<3	No Yes	Ever Had
7. Maintenance	Yes	Yes	<2	3+		Maintenance

Adoption Stage for Clinical Breast Exam*

Stage	Heard	Had	Years Since Last	Definition
1. Pre-Contemplation (i)	No	No		Never Heard
2. Pre-Contemplation (ii) Contemplation (i)	Yes	No		Never Had
3. Relapse Contemplation (ii)	Yes	Yes	2+	Not Current
4. Action Maintenance	Yes	Yes	<2	Current

Adoption Stage for Breast Self-Exam*

Stage	Heard	Had	Years Since Last	No. Past 5 Years	Plans Next Year	Definition
1. Pre-Contemplation (i)	No	No				Never Heard
2. Pre-Contemplation (ii) 3. Contemplation (i)	Yes Yes	No No			No Yes	Never Had
4. Relapse 5. Contemplation (ii) 6. Action	Yes Yes Yes	Yes Yes Yes	3+ 3+ <3	<2	No Yes	Ever Had
7. Maintenance	Yes	Yes	<3	2+		Maintenance

*Adapted from Rakowski W, Fulton JP, Feldman JP. Stages of adoption and women's decision-making about mammography. *Health Psychol* 12:209-214, 1993.

FACTOR DEFINITIONS AND FACTOR VARIABLES

Factor Definitions

Factor	Values	Component Variables	Coding Scheme	Cronbach's Alpha
English Use	0-3 = Low 4-7 = Medium 8-16 = High	Language: Most comfortable speaking now (D02A) Usually speak at home (D03A) Usually speak with friends (D04A) Usually speak with relatives (D05A)	 a b b b	0.86
Religious Practice	0-2 = Low 3 = Medium 4 = High	Church attendance (D29A) Comfort from church (D84A) Praying important part of life (D86A) Give money regularly to church (D89A)	c d d d	0.61
Traditional Health Beliefs	0-2 = Low 3-4 = Medium 5-8 = High	Heat removes fat from the body (D44A) Share antibiotics with others (D47A) Hilot is able to cure illness (D48A) Services of hilot after childbirth (D49A) Buy medicines in the Philippines (D50A) Circumcising tests manhood (D51A) Sick if it is meant to be (D53A) Mangkukulam can make you sick (D55A)	d d d d d d d d	0.60

Coding Scheme of Factor Variables

Coding Scheme	Variables	Value Recodes
a	D02A	0 = Filipino 2 = English and Filipino Equally 4 = English
b	D03A, D04A, D05A	0 = Only Filipino 1 = More Filipino than English 2 = English Filipino Equally 3 = More English than Filipino 4 = Only English
c	D29A	1 = Once a week or more 0 = Less often/DK/Refused
d	D84A, D86A, D89A, D44A, D47A, D48A, D49A, D50A, D51A, D53A, D55A	1 = Yes 0 = No/DK/Refused

TABLE 1. Demographic and Acculturation Characteristics of the Survey Sample (N=875): Filipino American Women

	n	%
Age		
20-39 years	273	31
40-49 years	185	21
50-64 years	224	26
65+ years	193	22
Marital Status		
Married/Living together	649	74
Single	225	26
Highest Level Schooling		
< high School	98	11
High School graduate	310	36
College graduate	462	53
Work Status		
Employed	569	65
Not employed	302	35
Insurance Status		
None	75	9
MediCal/Medicare	130	15
Private	654	76
Income		
< $20K	166	24
$20-$50K	230	33
$50-$75K	136	20
> $75K	160	23
Country of birth		
Philippines	783	90
United States	90	10
Length of stay in the U.S.		
0-5 years	114	15
6-10 years	138	18
11-20 years	282	36
> 20 years	249	32
Proportion of life in the U.S.		
< 1/4	293	34
1/4-1/2	300	34
1/2 or more	277	32
Do you go for check-ups?		
No	200	23
Yes	673	77
English Use Factor		
Low	317	37
Medium	256	30
High	292	34
Religious Practice Factor		
Low	125	14
Medium	195	22
High	555	63
Traditional Health Beliefs Factor		
Low	326	37
Medium	307	35
High	242	28

Note. Percentages may not add up to 100 because of rounding.

TABLE 2. Demographic and Acculturation Characteristics of Filipino American Women by Mammography Stage

		Mammography Stage				
	n	Never Heard %	Never Had %	Ever Had %	Maintenance %	*p* Value
Age						0.001
40-49 years	185	1	26	48	25	
50-64 years	224	3	13	33	50	
65+ years	193	9	17	35	39	
Marital Status						0.048
Married/Living together	452	3	17	39	41	
Single	150	7	23	35	34	
Highest Level Schooling						0.001
< high School	87	14	19	36	31	
High School graduate	187	5	19	40	37	
College graduate	324	1	18	38	43	
Work Status						0.001
Employed	349	2	22	40	36	
Not employed	250	8	13	36	43	
Insurance Status						0.001
None	51	18	18	47	18	
MediCal/Medicare	118	8	20	35	36	
Private	419	1	18	37	43	
Income						0.001
< $20K	139	9	16	42	34	
$20-$50K	144	1	23	35	40	
> $50K	180	1	17	42	41	
Country of birth						0.618
Philippines	572	5	18	38	39	
United States	29	0	17	45	38	
Length of stay in the U.S.						0.001
0-5 years	75	13	37	36	13	
6-10 years	90	10	23	40	27	
11-20 years	195	3	17	39	41	
> 20 years	211	1	11	36	52	
Proportion of life in the U.S.						0.001
< 1/4	237	10	25	37	29	
1/4-1/2	218	1	15	39	45	
1/2 or more	145	1	12	39	48	
Do you go for check-ups?						0.001
No	137	11	33	36	20	
Yes	465	3	14	38	45	
English Use Factor						0.001
Low	259	8	21	38	32	
Medium	194	2	17	36	46	
High	142	1	16	42	41	
Religious Practice Factor						0.001
Low	62	10	31	32	27	
Medium	119	8	18	48	26	
High	421	3	17	36	44	
Traditional Health Beliefs Factor						0.001
Low	196	2	12	39	47	
Medium	216	5	19	37	40	
High	190	7	25	38	29	

Note. Percentages may not add up to 100 because of rounding.
p value by chi-square test.

TABLE 3. Demographic and Acculturation Characteristics of Filipino American Women by Clinical Breast Exam Stage

		Clinical Breast Exam Stage				
		Never Heard	Never Had	Not Current	Current	
	n	%	%	%	%	*p* Value
Age						0.001
20-39 years	273	6	7	16	71	
40-49 years	185	2	9	19	70	
50-64 years	224	5	7	16	72	
65+ years	193	14	8	25	53	
Marital Status						0.277
Married/Living together	649	7	7	19	68	
Single	225	6	11	18	65	
Highest Level Schooling						0.001
< high School	98	20	13	19	47	
High School graduate	310	6	9	18	67	
College graduate	462	3	6	19	72	
Work Status						0.004
Employed	569	5	8	18	70	
Not employed	302	11	8	20	62	
Insurance Status						0.001
None	75	8	21	21	49	
MediCal/Medicare	130	14	9	25	52	
Private	654	5	6	17	72	
Income						0.001
< $20K	166	11	10	21	58	
$20-$50K	230	7	10	17	65	
> $50K	296	2	3	19	75	
Country of birth						0.530
Philippines	783	7	8	19	67	
United States	90	3	7	18	72	
Length of stay in the U.S.						0.001
0-5 years	114	16	14	17	54	
6-10 years	138	12	13	23	51	
11-20 years	282	5	7	16	72	
> 20 years	249	2	3	20	75	
Proportion of life in the U.S.						0.001
< 1/4	293	14	12	20	54	
1/4-1/2	300	4	6	19	71	
1/2 or more	277	2	4	17	76	
Do you go for check-ups?						0.001
No	200	15	13	22	50	
Yes	673	4	6	18	72	
English Use Factor						0.001
Low	317	12	12	18	59	
Medium	256	5	5	21	69	
High	292	3	5	17	75	
Religious Practice Factor						0.072
Low	125	6	6	15	73	
Medium	195	9	10	23	57	
High	555	6	7	18	69	
Traditional Health Beliefs Factor						0.001
Low	326	3	3	18	76	
Medium	307	7	9	18	66	
High	242	10	12	21	57	

Note. Percentages may not add up to 100 because of rounding.
p value by chi-square test.

TABLE 4. Demographic and Acculturation Characteristics of Filipino American Women by Pap Exam Stage

		Pap Exam Stage				
		Never Heard	Never Had	Ever Had	Maintenance	
	n	%	%	%	%	*p* Value
Age						0.001
20-39 years	273	1	7	16	75	
40-49 years	185	2	6	22	70	
50-64 years	224	4	7	26	63	
65 + years	193	13	9	25	53	
Marital Status						0.001
Married/Living together	649	4	5	22	69	
Single	225	8	14	21	57	
Highest Level Schooling						0.001
< high School	98	21	12	22	44	
High School graduate	310	5	8	20	67	
College graduate	462	1	5	24	70	
Work Status						0.001
Employed	569	2	6	19	72	
Not employed	302	9	9	28	54	
Insurance Status						0.001
None	75	9	16	32	43	
MediCal/Medicare	130	15	12	26	47	
Private	654	2	5	20	73	
Income						0.001
< $20K	166	9	12	27	52	
$20-$50K	230	2	7	23	69	
> $50K	296	1	5	17	78	
Country of birth						0.484
Philippines	783	5	7	22	65	
United States	90	2	7	19	72	
Length of stay in the U.S.						0.001
0-5 years	114	10	16	37	38	
6-10 years	138	9	12	16	63	
11-20 years	282	3	7	18	72	
> 20 years	249	2	2	24	72	
Proportion of life in the U.S.						0.001
< 1/4	293	11	13	28	49	
1/4-1/2	300	2	5	19	74	
1/2 or more	277	1	4	18	76	
Do you go for check-ups?						0.001
No	200	9	15	31	44	
Yes	673	3	5	19	72	
English Use Factor						0.001
Low	317	10	11	26	52	
Medium	256	2	4	22	72	
High	292	2	5	18	75	
Religious Practice Factor						0.041
Low	125	7	6	15	71	
Medium	195	7	9	25	59	
High	555	3	7	23	67	
Traditional Health Beliefs Factor						0.001
Low	326	<1	5	16	80	
Medium	307	4	8	28	60	
High	242	12	10	24	55	

Note. Percentages may not add up to 100 because of rounding.
p value by chi-square test.

Table 5. Demographic and Acculturation Characteristics by English Use Factor

	English Use Factor			
	Low	Medium	High	
	%	%	%	*p* Value
Age	(n=317)	(n=256)	(n=292)	0.001
20-39 years	18	24	51	
40-49 years	19	24	22	
50-64 years	28	33	16	
65+ years	34	18	11	
Marital Status	(n=317)	(n=255)	(n=292)	0.003
Married/Living together	75	80	67	
Single	25	20	32	
Highest Level Schooling	(n=313)	(n=256)	(n=291)	0.001
< High School	23	5	3	
High School graduate	34	30	43	
College graduate	43	65	53	
Work Status	(n=315)	(n=256)	(n=290)	0.001
Employed	56	70	73	
Not employed	44	30	27	
Insurance Status	(n=308)	(n=252)	(n=289)	0.001
None	11	6	8	
MediCal/Medicare	24	14	6	
Private	65	79	85	
Income	(n=227)	(n=204)	(n=252)	0.001
< $20K	38	21	13	
$20-$50K	35	34	31	
> $50K	27	45	55	
Country of birth	(n=317)	(n=256)	(n=290)	0.001
Philippines	98	100	72	
United States	2	<1	28	
Length of stay in the U.S.	(n=311)	(n=255)	(n=208)	0.001
0-5 years	22	11	8	
6-10 years	23	17	11	
11-20 years	33	41	34	
> 20 years	22	31	48	
Proportion of life in the U.S.	(n=317)	(n=254)	(n=289)	0.001
< 1/4	53	33	13	
1/4-1/2	35	47	24	
1/2 or more	12	20	63	
Do you go for check-ups?	(n=317)	(n=254)	(n=292)	0.001
No	32	17	18	
Yes	68	83	82	
Religious Practice Factor	(n=317)	(n=256)	(n=292)	0.001
Low	11	7	24	
Medium	26	21	20	
High	63	72	56	
Traditional Health Beliefs Factor	(n=317)	(n=256)	(n=292)	0.001
Low	22	36	54	
Medium	35	38	33	
High	43	26	13	

Note. Percentages may not add up to 100 because of rounding.
p value by chi-square test.

Table 6. Demographic and Acculturation Characteristics by Religious Practice Factor

	Religious Practice Factor			
	Low	Medium	High	
	%	%	%	*p* Value
Age	(n=125)	(n=195)	(n=555)	0.001
20-39 years	50	39	24	
40-49 years	22	18	22	
50-64 years	14	21	30	
65+ years	13	22	24	
Marital Status	(n=125)	(n=195)	(n=554)	0.260
Married/Living together	69	77	75	
Single	31	23	25	
Highest Level Schooling	(n=124)	(n=193)	(n=553)	0.001
< High School	8	14	11	
High School graduate	52	38	31	
College graduate	40	48	58	
Work Status	(n=123)	(n=195)	(n=553)	0.293
Employed	72	65	64	
Not employed	28	35	36	
Insurance Status	(n=118)	(n=191)	(n=550)	0.273
None	13	10	7	
MediCal/Medicare	11	15	16	
Private	76	75	77	
Income	(n=99)	(n=153)	(n=440)	0.322
< $20K	16	25	25	
$20-$50K	35	35	32	
> $50K	48	39	43	
Country of birth	(n=125)	(n=194)	(n=554)	0.001
Philippines	76	86	94	
United States	24	14	6	
Length of stay in the U.S.	(n=94)	(n=168)	(n=521)	0.303
0-5 years	14	20	13	
6-10 years	18	20	17	
11-20 years	36	34	37	
> 20 years	32	26	34	
Proportion of life in the U.S.	(n=123)	(n=194)	(n=553)	0.001
< 1/4	27	39	33	
1/4-1/2	24	29	39	
1/2 or more	50	32	28	
Do you go for check-ups?	(n=125)	(n=193)	(n=555)	0.001
No	30	30	19	
Yes	70	70	81	
Traditional Health Beliefs Factor	(n=125)	(n=195)	(n=555)	0.248
Low	45	34	37	
Medium	34	38	34	
High	22	28	29	

Note. Percentages may not add up to 100 because of rounding.
p value by chi-square test.

Table 7. Demographic and Acculturation Characteristics by Traditional Health Beliefs Factor

	Traditional Health Beliefs Factor			
	Low	Medium	High	
	%	%	%	*p* Value
Age	(n=326)	(n=307)	(n=242)	0.001
20-39 years	40	30	21	
40-49 years	22	20	21	
50-64 years	23	27	27	
65+ years	15	23	31	
Marital Status	(n=326)	(n=307)	(n=241)	0.662
Married/Living together	75	76	72	
Single	25	24	28	
Highest Level Schooling	(n=325)	(n=304)	(n=241)	0.001
< High School	4	11	22	
High School graduate	34	37	37	
College graduate	62	52	41	
Work Status	(n=324)	(n=306)	(n=241)	0.007
Employed	72	63	59	
Not employed	28	37	41	
Insurance Status	(n=326)	(n=299)	(n=234)	0.001
None	7	7	14	
MediCal/Medicare	9	15	25	
Private	85	78	61	
Income	(n=269)	(n=241)	(n=182)	0.001
< $20K	15	24	37	
$20-$50K	30	35	36	
> $50K	55	41	27	
Country of birth	(n=326)	(n=305)	(n=242)	0.001
Philippines	82	92	97	
United States	18	8	3	
Length of stay in the U.S.	(n=267)	(n=282)	(n=234)	0.001
0-5 years	8	18	18	
6-10 years	14	18	22	
11-20 years	35	36	37	
> 20 years	43	28	23	
Proportion of life in the U.S.	(n=324)	(n=306)	(n=240)	0.001
< 1/4	20	36	49	
1/4-1/2	34	37	32	
1/2 or more	46	27	19	
Do you go for check-ups?	(n=326)	(n=306)	(n=241)	0.077
No	19	23	27	
Yes	81	77	73	

Note. Percentages may not add up to 100 because of rounding.
p value by chi-square test.